## ABSTRACT

An engine protection system for a construction machine, which can individually diagnose a tendency of exhaust temperature specific to each cylinder of an engine corresponding to an engine revolution speed, and can find an abnormal condition of each engine cylinder in advance. The engine protection system comprises a revolution speed sensor 14 for detecting a revolution speed of an engine mounted in the construction machine, a plurality, e.g., 16, of cylinder temperature sensors 20a-20p for detecting exhaust temperatures of respective cylinders of the engine, and a data recording unit 26 and a display controller 24 for storing the detected engine revolution speed and the detected exhaust temperatures of the respective cylinders while keeping temporal relationship. The data recording unit 26 outputs trend data, which is produced based on the stored data, to a PC terminal 30 disposed in, e.g., an office via, e.g., a portable terminal 29, and the display controller 24 outputs, to a display unit 23 disposed in a cab 5, a signal for playing back and displaying snapshots produced based on the stored data.